



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

ARGEO PAUL CELLUCCI
Governor

JANE SWIFT
Lieutenant Governor

BOB DURAND
Secretary

EDWARD KUNCE
Acting Commissioner

February 16, 1999

Bob Durand
Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

Dear Secretary Durand:

I am pleased to send you the enclosed Final Generic Environmental Impact Report ("Final GEIR") on the Commonwealth's redesigned Waste Site Cleanup Program. Department of Environmental Protection and the Board of Registration of Hazardous Waste Site Cleanup Professionals have prepared this report to complete MEPA review of this program's redesign (begun in 1993 with publication of an Environmental Notification Form describing revisions in the Massachusetts Contingency Plan, 310 CMR 40.0000). This Final GEIR follows a Draft GEIR published on June 30, 1998 which evaluated the redesigned Waste Site Cleanup Program's first five years of operation, and suggested a number of refinements.

In accordance with the Secretary's Certificate on the Draft GEIR (# 11203, issued on September 16, 1998), this Final GEIR responds to public comments received, identifies the general direction for program refinements that will be developed over the next two years, and invites public participation in the development of these improvements. This report is organized in three sections:

- a General Statement of Program Direction, which describes the Commonwealth's plans for the redesigned Waste Site Cleanup Program (Section 1)
- Responses to Specific Comments (Section 2)
- Appendices, which include the full text of comments received on the Draft GEIR, the full text of the Secretary's Certificate on the Draft GEIR, five matrices describing DEP's approach for addressing the program improvements, and DEP's solicitation of public participation in this process (Section 3).

In five years, this truly innovative program has already provided important environmental and economic benefits to the Commonwealth. It has been a national model for achieving significant

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environmental protection while focusing state resources on activities that require government attention. In 1998, the Legislature built upon these benefits by enacting a strong Brownfields Law that provides both liability relief and financial aid for cleanup to aid redevelopment of contaminated property.

Both DEP and the LSP Board remain committed to this innovative approach to cleaning up hazardous waste sites and spills. At the same time, we also recognize that the program can and should be refined in specific ways. These refinements, which are described in the Final GEIR, will be designed to enhance the overall quality of cleanups and to reinforce public confidence in the program.

The Waste Site Cleanup Program has long been a leader among state agencies in working with program stakeholders to ensure that its rules and operations meet everyone's needs. DEP looks forward to continuing this tradition with the focused workgroups described in the Final GEIR, and the robust public discussions that this process will create.

Sincerely,

[Signature on original]

Edward Kunce
Acting Commissioner

21E Program Evaluation Final Generic Environmental Impact Report

Prepared by

the Massachusetts Department of Environmental Protection

and

the Board of Registration of Hazardous Waste Site Cleanup Professionals

February 16, 1999

SECTION 1: General Statement of Program Direction

SECTION 1: General Statement of Program Direction

Summary of Findings:

- **The innovative privatized cleanup program is a success: it has increased the number of cleanups completed by private parties and has allowed DEP to concentrate more resources on serious threats to public health and the environment.**
- **DEP's rigorous program evaluation identified a number of areas that should be strengthened to further enhance the program's success. DEP invites interested stakeholders to help develop these program enhancements.**

The Redesigned Program Works.

The redesigned Waste Site Cleanup Program, established by statute in July 1992 and by implementing regulations that took effect on October 1, 1993, has now been operating for more than five years. The redesigned program was intended to speed the assessment and cleanup of Massachusetts's hazardous waste sites in two complementary ways:

- by strengthening and expanding the private sector's role and responsibilities, encouraging private parties to conduct timely response actions, and
- by focusing DEP's resources on sites that the private sector cannot or will not handle, and on tasks that the public sector must perform to ensure that private sector actions adequately protect human health and the environment.

An in-depth evaluation of the program's first five years (described in the Draft Generic Environmental Impact Report published on June 30, 1998) found that the redesigned program has met many of its goals:

- It has removed many government-related obstacles to voluntary cleanups.
- It has established clear rules for reporting, investigating, and cleaning up contamination.
- Its performance standards have provided valuable flexibility to tailor cleanups to real-world uses of sites and environmental resources, and have also established mechanisms that ensure that risk-based decisions remain protective over time.
- It has provided powerful incentives for early risk reduction and for resolving small problems quickly.
- It has shifted DEP's resources to focus more on the worst problems presented by contamination in the environment, including efficient responses to chemical emergencies and spills, discovery of unreported releases, work on a variety of "worst" sites, and more strategic use of public funds for problems that the private sector cannot or will not handle.

These accomplishments are reflected in statistics cited in the Draft GEIR. In the new program's first four years:

- approximately 10,000 releases exceeding notification thresholds have been reported to DEP;
- more than 9,500 risk reduction measures have been implemented (approximately 7,300 mandatory Immediate Response Actions and 2,200 voluntary Release Abatement Measures);
- more than fourteen times as many sites with long-standing contamination have been cleaned up or closed out as compared to the last four years of the old program (approximately 3,146 sites compared to 225);
- more than 7,200 assessments and/or cleanups (of both sites and spills) have received LSP “signoff” (i.e., a Response Action Outcome or “RAO” was filed) to complete the MCP system (approximately 1,600 RAOs have been filed for sites that had languished for years under the old rules); and
- approximately 90% of all RAOs filed show that releases have been either cleaned up to background conditions (38%) or meet the MCP’s most stringent cleanup levels (52%), making the sites suitable for unrestricted use.

In sum, the privatized Waste Site Cleanup Program provides important environmental and economic benefits to the Commonwealth, far surpassing its predecessor. Together, DEP and the Board of Registration of Hazardous Waste Site Cleanup Professionals will maintain and continuously improve the redesigned Waste Site Cleanup Program.

Continuing Program Improvements.

DEP initiated a bold experiment with the 1992-3 redesign. From the outset, all stakeholders understood that time and experience would identify future refinements that could help achieve even greater benefits. The GEIR evaluation identified many avenues for improvement. Through focused stakeholder external workgroups, DEP will consider and craft regulatory and policy proposals in the coming months. As discussed more specifically in Section 2 of this Final GEIR, DEP will seek to:

1. continue to strengthen the quality of private sector work by:
 - making key performance standards more specific to provide adequate direction to the private sector;
 - developing guidance in areas where compliance reviews (e.g., via audits and LSP Board reviews of complaints about professional conduct) indicate a need to clarify agency expectations;
 - improving compliance assistance while encouraging LSPs to exercise their professional judgment;
 - expanding and streamlining the audit program to use its resources more efficiently and to provide a more complete picture of the quality of private sector response actions (including implementation of the new mandate in the 1998 Brownfields Law requiring DEP to conduct targeted audits of all sites with Activity and Use Limitations); and
 - holding PRPs and LSPs accountable for their performance through the continued emphasis on DEP enforcement actions and the LSP Board’s standards for professional conduct and disciplinary proceedings;

2. continue to shift DEP's resources to focus on "worst" sites and involuntary cleanups by:
 - refining the Numerical Ranking System and permit process to better identify the universe of sites needing increased DEP oversight;
 - continuing to assign DEP staff to these sites and to seek ways to use these resources more efficiently;
 - focusing enforcement efforts on parties who do not report releases or undertake cleanups; and
 - continuing to develop strategies to better target scarce public funds on high risk sites.
3. consolidate confidence in the program by:
 - making compliance and other program information more publicly accessible;
 - enhancing its public involvement component; and
 - continuing to train DEP site managers, LSPs, and other stakeholders about standards, good practices, and areas of flexibility.
4. continue to ensure that standards adequately protect health, safety, public welfare, and the environment by keeping them scientifically current, and streamlining them to assure maximum clarity and ease of implementation, and
5. develop a consensus about how to measure the program's performance in a comprehensive way.

Invitation for Stakeholder Input

DEP's Bureau of Waste Site Cleanup plans to revise the Massachusetts Contingency Plan and associated operational practices in two phases. The first phase, including regulation changes required by the 1998 Brownfields Law and other high priority regulatory and operational changes, will be completed by August 6, 1999. The second phase, addressing more complex issues, will benefit from additional time for public participation. It will be completed by March, 2000. The LSP Board will revise its regulations in conjunction with DEP's schedule for the first phase of improvements, and may implement additional changes in accordance with DEP's schedule for the second phase. The issues that will be addressed in each phase are described below in Table 1. DEP is also committed to continuing to evaluate the operation of this program (with advice from the Waste site Cleanup Advisory Committee), and will (as with other agency programs) seek to continue to identify and develop ways to make this program more efficient and effective.

TABLE 1**PLAN FOR ENHANCEMENTS OF THE WASTE SITE CLEANUP PROGRAM****PHASE I/DEP**

- substantial release migration*
- downgradient property status*
- activity and use limitations*
- response action outcomes*
- reporting/cleanup standards
- audit program
- compliance assistance
- numerical ranking system
- amnesty for redevelopment authorities*
- permits (submitting Phase II scopes of work with Tier Classifications, adding PRPs to existing permits, and allowing Tier Classifications to be downgraded after Phase III where appropriate)

PHASE I/LSP BOARD

- licensing requirements
- professional conduct rules
- rules for disciplinary proceedings

CONTINUOUS EVALUATION AND IMPROVEMENTS/DEP

- Site management/direct oversight evaluation
- Enforcement response guidelines/policies

PHASE II/DEP

- conceptual site model
- site discovery
- permits (additional streamlining)
- remediation waste/dirt management
- “front end” requirements (LRAs, IRAs, RAMs)
- fees
- public involvement
- technical policies
- measures of success

CONTINUOUS EVALUATION AND IMPROVEMENT/LSP BOARD

- continued development of professional conduct rules
- continued development of procedures for disciplinary proceedings

* required by 1998 Brownfields Law

DEP and the Board of Registration of Hazardous Waste Site Cleanup Professionals will maintain and continuously improve the redesigned, privatized Waste Site Cleanup Program. DEP will submit annual update reports on the program’s progress to the Secretary of Environmental Affairs, with notice in the Environmental Monitor.

Public participation in developing both phases of these enhancements is critical to the continued success of this program. The comments received on the Draft GEIR will be considered throughout the process, as will feedback received in the development of the Draft GEIR from focus groups and surveys, and comments submitted after the close of the MEPA comment period. DEP will continue to solicit public input through the Waste Site Cleanup Program Advisory Committee, which will set up workgroups to discuss the issues identified above (and others where interest is indicated). The LSP Board encourages interested parties to participate in Board meetings at which these improvements will be discussed.

To assure participation by the wide range of stakeholders interested in the program, DEP has directly invited all commenters to participate in the workgroups. In addition DEP has contacted the following organizations to solicit their involvement (groups represented on the Waste Site Cleanup Program Advisory Committee are noted with an asterisk):

- Licensed Site Professional Association*
- MassPIRG*
- Associated Industries of Massachusetts*
- Massachusetts Municipal Association*
- Massachusetts Petroleum Council*
- Massachusetts Public Health Association*
- Massachusetts Health Officers Association*
- Greater Boston Real Estate Board*
- New England Water Works Association*
- The John Snow Institute/ Center for Environmental Health Studies
- Small Business Association of New England*
- American Consulting Engineers Council of New England*
- Toxics Action Center
- New England Environmental Business Council
- National Association of Industrial and Office Properties

To learn about the Waste Site Cleanup Program Advisory Committee and workgroup discussions, please contact Paul Bakely in the DEP Bureau of Waste Site Cleanup (telephone: 617/292-5617, email: d.bakely@state.ma.us). To learn about LSP Board meetings, please contact Allan Fierce, the Board's executive director (telephone: 617/574-6870, email: allan.fierce@state.ma.us). Information about the Waste Site Cleanup Program, the Advisory Committee and its workgroups, and plans for developing program improvements can be found on DEP's Web Page, <http://www.state.ma.us/dep/bwsc>.

SECTION 2: Summary of Public Comments and Responses

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This section of the Final GEIR provides the Department's and the LSP Board's responses to public comments received on the June 30, 1998 Draft GEIR. All comments were reviewed by the Department and the LSP Board and will serve as a valuable starting point for development of operational and regulatory changes among all program stakeholders. Every attempt was made in this document to accurately summarize and distill the public comments received. Public participation in the planned workgroups will also afford extensive and on-going opportunities to comment on the program.

The public comments described in this section follow the format of the Draft GEIR that posed a series of questions in each of its chapters. DEP's responses follow. Public comments for the LSP Board's evaluation and the Board's response are presented at the end of this section.

In general, most commenters expressed support for the program and concern that the Draft GEIR had not adequately characterized the redesigned program's fundamental success. In fact, several stakeholder groups observed that the MCP should be used as a national model for effective site cleanup. In the Draft GEIR, DEP had attempted to give voice to all stakeholders who contributed time and thought to the evaluation. This exposition may have had the unintended result of overemphasizing concerns about certain aspects of the program. While DEP plans to address many of the reported concerns to improve all aspects of this complex program, DEP agrees with the large majority of commenters who urged DEP to retain and strengthen the program and its major innovations. While the program evaluation demonstrated the program's underlying strength, it also revealed many opportunities for refinement, as expected. DEP remains committed to retaining and improving the privatized MCP.

I. Is Reliance on the Private Sector Working?

A. Completed Cleanups:

Many commenters noted that the privatized 21E program, the Massachusetts Contingency Plan, and their implementation by LSPs and DEP are in general quite successful, and represent a significant improvement over the former program approach. Particular support was voiced for the program's risk-based approach to cleanup decisions and for the ability of property owners and others to proceed promptly with response actions. At the same time, certain commenters stated their belief that progress at the most serious sites has been slow, and that cleanup statistics may reflect response actions at lower priority sites where problems can be dealt with quickly and inexpensively or determined to pose risks below DEP's action thresholds.

DEP's Response: As noted in Section 1 above, DEP agrees that the program has prompted an exponential increase in the number of cleanups, particularly in its "front end", in a very short period of time. At the same time, DEP has also recognized that progress at some complex sites has been slower than was hoped in 1992-3, and is initiating several program refinements to deal with this situation:

- Since publication of the Draft GEIR in June 1998, DEP has developed and started to implement a strategy to target enforcement actions against parties who have failed to proceed with response actions at their sites.

- DEP is evaluating the timelines set in the MCP for specific assessment and cleanup milestones (i.e., phase deadlines and Tier Classification), and may propose regulatory changes in the second phase of program improvements. The agency has also continued to develop and implement enforcement strategies to compel responsible parties to undertake cleanups in a timely way.
- DEP is also reviewing the resources devoted to oversight of complex and ‘high risk’ sites (including those classified as “Tier IA”), and expects to identify ways to make its oversight more efficient and effective, to increase the pace of response actions at these most important sites. These and other specific program refinements are described further in Section III below.

B. Notification and Preliminary Risk Reduction Measures:

Several commenters noted that the notification thresholds established by the 1993 MCP worked effectively to keep minor problems out of the 21E system and to identify true chemical emergencies. Commenters supported the incentives and opportunities provided to reduce risks as quickly as possible (thereby containing problems before they create larger risks and increase cleanup costs). At the same time, several areas for improvement were identified. These include:

- Providing flexibility for urban construction sites which contain contamination but no source.
- Clarifying the definition of “a condition of substantial release migration” so that the situations in which contamination that may be moving rapidly toward sensitive receptors (e.g., homes, schools, day care centers, etc.) are reported to DEP and the need for Immediate Response Actions is quickly assessed.

DEP’s Response: DEP agrees that the “front end” and risk reduction aspects of the MCP have seen dramatic success. At the same time, the agency continues to look for ways to improve these aspects of the program. Specifically:

- Procedures for accommodating assessment and remediation during construction (especially in urban areas, which has always posed special challenges) will be reviewed and refined during the first phase of program improvements, to capitalize on the opportunities for cleanup during construction while not compromising the program’s focus on permanent solutions to contamination problems.
- The definition of “substantial release migration” and its application will be revised in the first phase of program improvements as required by the 1998 Brownfields Law.

C. Compliance with Deadlines/Tier Classification/Phases:

While one commenter suggested that deadlines for complex projects should be extended, several other commenters noted that cleanup progress at these sites was not as rapid as had been hoped when the program was redesigned.

DEP’s Response: the redesigned program has worked exceptionally well at sites where owners, operators, and/or other parties are willing to proceed with cleanup and have the financial resources to do so. At the same time, the agency agrees that, where the private sector has not been willing or able to undertake response actions, deadlines have passed and response actions

are not proceeding. This issue is directly related to a number of others that are discussed in several sections of the Draft GEIR: DEP's resources for focusing on sites where response actions are not proceeding, the efficiency of agency enforcement strategies to compel action, the availability of financial assistance for parties who want to proceed but lack resources, etc. have all contributed to the problem noted. As noted elsewhere in this Final GEIR, the agency has initiated the following to resolve these issues:

- The 1998 Brownfields law established important new financial assistance mechanisms that will provide significant private and public resources to people who want to proceed with cleanup. DEP is currently assisting the agencies that are directly responsible for implementing these new tools, and expects that they will start providing financing in the Spring of 1999.
- As noted above, DEP has developed and started implementing new enforcement strategies for compelling private parties to perform more timely cleanups (including tier classifying and meeting other applicable deadlines). As the agency gains experience with these strategies, they will be evaluated and fine-tuned, and extended to all aspects of the cleanup process.
- During the second phase of program improvements, DEP will consider revisions in the timelines and deadlines established by the MCP for specific assessment and cleanup milestones.

D. Contaminated Soil Management:

Several commenters agreed that a key to the program's success has been the MCP's rules for management of contaminated soil, which are generally seen to be cost-effective. However, commenters identified several areas where attention is needed, particularly where federal standards for remediation wastes (i.e., TSCA and RCRA) are inconsistent with the procedures in the MCP.

DEP's Response: Safe and cost-effective soil management continues to be a priority for DEP. The agency continues to develop guidance clarifying state requirements for managing contaminated media generated by 21E cleanups, as well as management strategies for destroying and detoxifying oil and hazardous materials in contaminated media. DEP will provide information about federal requirements in this area, to assist the private sector with compliance, and will continue to work with EPA to ensure that state and federal requirements are, to the extent possible, complementary. In addition, DEP will continue its on-going efforts to make information available about innovative technologies and new approaches (including those endorsed by other states and the U.S. EPA) to PRPs and LSPs.

For more detailed lists of program improvements relating to the program's "front end" and timeliness of response actions, please see Appendix 4, Teams 1 and 5.

II. Quality of Private Sector Response Actions

A. Better Definition of Key Performance Standards

Many commenters noted that a key to the program's success has been DEP's adoption of cost-effective rules, such as risk-based cleanup standards which (with the use of Activity and Use Limitations) provided certainty about "how clean is clean enough". Some commenters identified additional areas where guidance would be helpful:

- Assessing the feasibility of approaching/achieving background and of achieving a permanent solution.
- Conducting public involvement activities.
- Performing construction in contaminated areas.
- Designing engineered barriers.
- Managing contaminated soil and other media resulting from response actions appropriately.
- Establishing a “conceptual site model” as a basis for planning assessment and remediation activities.
- Identifying criteria for conducting assessments of ecological risk, including sediment standards.

Conversely, other commenters advised DEP to refrain from issuing additional guidance, so as to encourage LSPs to rely on their professional judgement. Several commenters indicated a belief that DEP treats guidance as prescriptive, potentially undercutting the redesigned program’s reliance on the private sector.

DEP’s Response: The Draft GEIR identified a key need to strengthen the quality of documentation submitted by LSPs/PRPs, as well as several ways to accomplish this objective: clarification of specific performance standards, continued development of guidance documents, and training of LSPs, DEP staff, and other interested parties. Based on the review of audit findings and requests for compliance assistance, DEP believes that this important need must be addressed. The agency also believes that guidance and other types of compliance assistance can be provided (and that the overall standard of care provided for 21E sites can be raised) without compromising the ability of LSPs to exercise their professional judgement about specific cases. In short, DEP sees the provision of compliance assistance in a variety of forms as key to the long-term success of the redesigned program.

Since the Draft GEIR was published, DEP has started working on several of the tasks identified above. Guidance will be issued in the first phase of program improvements on:

- Developing and implementing Activity and Use Limitations,
- Implementing “VPH/EPH” standards and methods of analysis at petroleum sites.
- Preservation of soil samples containing volatile organic compounds.
- Using small diameter driven wells as part of site characterization.

As part of the second phase of program refinements, DEP plans to develop guidance and may propose regulations about using conceptual site models for site investigations, remediation waste, engineered barriers and the feasibility of achieving background.

In addition, the agency is considering the publication of guidance on the application of Department policies at individual sites, which would specifically allow LSPs to explain in their submittals why agency policy is not applicable to the circumstances of a particular site.

B. Greater Accountability for Private Sector Work

Commenters who addressed this subject generally agreed that the Commonwealth needs to ensure that sites are being adequately assessed and that the quality and extent of cleanups will protect citizens. Also, in general, there was support expressed for the division of responsibilities that has developed between DEP and the LSP Board: DEP is responsible for ensuring that PRPs (and their LSPs) are complying with the MCP at individual sites, and the LSP Board is responsible for disciplining LSPs who do not meet the Board's requirements for professional conduct in their practice. Several commenters noted that, in general, LSPs are competent, conscientious, and doing adequate work, and that reliance on their reasonable professional judgement is a cornerstone of the redesigned 21E program. Commenters also agreed with the Draft GEIR's description of how the standard of care for 21E sites is developed --by multiple parties (including DEP).

However, some commenters expressed reservations about the prospect of DEP directing enforcement specifically against LSPs (most DEP enforcement actions are directed to the PRP or person who hired the LSP), citing concerns that such action would be unduly harsh given the program's "newness", the breadth of issues LSPs are expected to deal with, and the rapidly changing nature of the technical and regulatory components of their work. Other concerns cited were the additional legal exposures that this approach would create for LSPs and the marketplace disincentives (which were not specified). There was some support among commenters on this issue for strengthening the LSP Board's standards for professional conduct (the Board has several proposals to accomplish this, which are described in Section IX below), and for publicizing DEP's audit findings and the LSP Board's disciplinary actions more widely.

DEP Response: As noted in Section 9 of the Draft GEIR, the legislation and subsequent regulations that created "Licensed Site Professionals" represents a balance of interests: in general, PRPs remain responsible for ensuring that DEP's response action requirements are met and LSPs are generally responsible for complying with the LSP Board's rules of professional conduct. DEP will continue to direct most enforcement actions against the parties who are legally responsible for performing response actions (with the understanding that, as noted in the Draft GEIR, these parties can ask their LSP to fix problems that the LSP may have created or to use the LSP's "errors and omissions" insurance to pay for rectifying mistakes). Also, DEP has and will continue to refer complaints about LSPs' professional conduct to the LSP Board, and that Board will continue to investigate these complaints (as well as others from other parties such as clients, site neighbors, local officials, etc.) and to take disciplinary action where appropriate. DEP plans to continue to work with the LSP Association to support that organization's efforts to develop the profession.

At the same time, there are some limited (and relatively specific) situations in which DEP believes that LSPs should be directly accountable to DEP for their work, in the same ways that other professionals are (e.g., engineers, attorneys, and accountants). These situations generally occur where Opinions filed with the agency do not conform to MCP requirements (e.g., they are not supported by documentation, or they claim that response actions occurred in compliance with the MCP when substantial non-compliance is apparent from the supporting documentation). In pursuing enforcement actions in these situations, DEP will consider the balance of interests

created by the 1992 legislation, the need for LSPs to be able to exercise their professional judgement as they practice their profession, and the need for PRPs and the public to have confidence that LSP Opinions are adequate.

Enforcement strategies will be implemented statewide as part of the program's "Enforcement Response Guidelines". In addition, DEP will work on equitable ways to make its audit results more public as part of the revisions in the audit program described in Section III B 1 below.

LSP Board Response: the LSP Board has adopted a policy requiring mandatory press releases for all final disciplinary actions and "Notices of Board Action" for all proposed disciplinary measures (except private censures, which by their nature cannot specifically be made public). The Board is now in the process of reviewing its regulations governing professional conduct, and expects to revise them as described in Section IX below.

C. Increased Field Presence

Commenters noted that remedial systems can be difficult to maintain, and require effort to diagnose problems and to solve them when they occur. Some commenters asked that maintenance problems should only be the target for enforcement actions when they affect public health or the environment, and also asked that DEP work closely with the private sector to evaluate and promote passive systems (that do not require high levels of maintenance) whenever possible. It was also suggested that the MCP require a simple report on the status of operating systems as part of routine maintenance.

DEP Response: The best cleanup plans are meaningless unless they are implemented correctly and maintained over time – no matter whether these plans are developed as risk reduction measures or are designed for long-term cleanup. While DEP recognizes that active remedial systems can be difficult to operate and maintain, they are necessary in cases where passive systems are not appropriate. DEP will continue its on-going efforts to inform LSPs and PRPs about promising innovative technologies that may offer treatment that is more passive and easier to operate and maintain than traditional active systems. At the same time, to ensure that active remedial systems are operated and maintained to work as intended, DEP must expand its field presence for inspections and followup enforcement if needed.

DEP recognizes that an increased field presence for the agency is important throughout the Waste Site Cleanup Program. For example, the Draft GEIR recommended that DEP establish unannounced inspections of these systems as a type of audit; the agency has included this recommendation in its redesign of the audit program which is described in more detail below. The comments described above identified some issues that will be considered in designing this component of the new audit program (including review of status reports describing system operation and maintenance that are submitted to DEP), which will occur in the first phase of program improvements.

DEP's plans for addressing these issues are described in more detail in Appendix 4. For specifics on plans to improve accountability and to increase field inspections of remedial treatment systems, please refer to Team 4.

III. Is DEP Focusing its Resources Where it Should?

In general, commenters addressing this issue noted that DEP staff has focused more on important Tier I sites than in the old program. However, as noted in the responses to comments in Section II.1.A above, progress at these sites has not always proceeded expeditiously, despite the program's redesign. Commenters addressed several issues, including the resources that DEP has focused on "worst" sites and the need to expedite cleanups. Also, improvements were suggested for the Numerical Ranking System, Tier I permit process, and the Site Discovery Program.

A. Focus on "Worst Sites"

1. Expediting Cleanups

Commenters made several suggestions about how to increase the pace of cleanup at the "worst sites" in the Commonwealth. Specifically, it was suggested that DEP should:

- Increase staff assigned to Tier IA sites as a priority.
- Publicly list its top 100 priority sites and implement aggressive plans for remediation at them.
- Focus its resources on protecting water supplies and addressing water systems contaminated with volatile organic compounds.
- Recognize risk reduction measures as well as permanent cleanups in published lists of Tier I sites, to identify progress that is important, even though it may be short of permanent cleanup.

DEP Response: As noted in the Draft GEIR, DEP is focusing its site management resources on the "worst" sites in the Commonwealth, not just on those that are classified as "Tier IA". Types of sites that receive direct DEP oversight include:

- Sites tier classified and permitted as Tier IA.
- Publicly funded sites where private parties are unable or unwilling to proceed with response actions.
- Sites requiring complex risk reduction measures before they can be Tier Classified.
- Emergency responses to spills and other sudden releases.
- Publicly sensitive sites (e.g., those with impacts on private wells or several environmental media, vapors in homes and schools, and enforcement cases).

DEP is currently considering a number of program improvements to expedite these cleanups. The annual publication of the Tier I site list, which has identified sites where response actions are not proceeding, has prompted many property owners to initiate cleanup actions. DEP is developing Enforcement Response Guidelines that will establish penalties and procedures for

taking enforcement actions where mere listing is not sufficient to prompt private sector action, and will expand the types of “compliance reminder” letters it issues..

Through a recent reorganization study, BWSC identified the need to create a “Site Management and Coordination Unit” in the Bureau’s Boston office, to promote statewide consistency in managing “worst” sites, and to continually identify ways to improve this program’s efficiency and effectiveness. This Unit was created in July 1998, and has begun to compile data to evaluation of site management activities than could not be undertaken for the Draft GEIR. DEP expects that longer-term improvements in site management activities will be identified through this review, and will be implemented over the next 2-4 years. These longer-term improvements will include the development of ways to reduce the uncertainties that surround promising innovative technologies (that provide the prospect of shorter cleanup timelines and/or reduced costs).

2. Numerical Ranking System

Commenters had several suggestions for improving the Numerical Ranking System (NRS). Some want to modify the NRS so that fewer sites score as Tier IA, since the agency cannot adequately oversee all of these sites. Others would like to see higher scores for private well contamination, and would like it to address orphan sites, and new information about known releases.

DEP Response: DEP agrees that the NRS can be improved so that scoring better reflects confirmed exposure pathways and real risks at sites, particularly to address private well contamination, indoor air impacts, complex hydrogeological situations, and new information obtained later in the response action process. While these changes may result in more sites classified as “Tier IA”, many are currently directly overseen by DEP under other authority. Tier I designation (and IA where appropriate) will better reflect both real and potential risks at these sites. In addition, DEP believes that the evaluation and development of improvements in site management described above will improve the agency’s ability to establish an adequate level of oversight for these sites once they are classified as Tier I (or IA). NRS modifications will be proposed in draft regulations in the first phase of program improvements.

3. Tier 1 Permits

Commenters suggested several improvements in the Tier I permit process, including streamlining requirements for permit modifications where PRPs’ names change as the result of mergers and other business transactions, and for PRPs to promise to perform all necessary response actions once the permit is issued. Other commenters addressed some of the recommendations in the Draft GEIR for changing the permit requirement to the end of Phase III or only requiring permits for sites where cleanups rely on restrictions in site uses. These comments noted that such actions would probably not reduce the number of sites requiring permits, and may add to DEP’s site review workload.

DEP Response: DEP will consider ways to streamline permit requirements during the second phase of program improvements, and will address situations where PRPs need to be added or identified differently due to business transactions. On a longer time frame, the value and timing of the permit will be evaluated in more detail as part of the agency’s review of site management activities. This evaluation may result in additional recommendations for improvements in the permit process.

4. Site Discovery

Commenters noted that an aggressive and fully-staffed site discovery program must be implemented to ensure that unidentified and unreported hazardous waste sites in the state are being addressed, and asked DEP to focus more resources on protecting water supplies.

DEP Response: As noted in the Draft GEIR, the site discovery program was directed by statute to proactively look for sites posing a substantial hazard to public health and the environment. This program component has focused largely on sites that pose a threat to large municipal water supplies where testing indicates contamination. Over the last five years, the program has also used site discovery resources to identify sources of contamination in residential drinking water wells (and smaller community water systems) as well as vapor infiltration into homes and schools – situations that may also pose imminent or substantial hazards. In the second phase of program improvements, DEP will explore operational changes in the site discovery program to expand more systematically into these areas of inquiry. In addition, DEP will seek ways in which this program component can complement on-going compliance and enforcement efforts in the Waste Site Cleanup Program as well as other DEP programs.

For more detail on DEP's approach to addressing these program refinements please refer to Appendix 4, Team 5.

B. Compliance and Enforcement

In general, commenters expressed widespread support for improving DEP's efforts to determine whether private sector response actions are adequate, and to take enforcement action where response actions do not comply, where response actions are not underway, or where contamination is not reported to the agency.

1. Audits

Commenters indicated their support for the Draft GEIR's recommendations for improving the audit program, noting that standardization is needed before meaningful conclusions can be drawn about the overall quality of private sector response actions, and that audits should to provide a significant deterrent for substandard private sector work. Commenters voiced support for:

- Expanding the definition of an “audit” to include a number of activities that DEP already conducts (e.g., screening submittals and inspections of remedial systems).
- Separating audits from compliance assistance to eliminate opportunities to perform corrective work during an audit.
- Focusing audits on substantive site/compliance issues and not on administrative problems.
- Providing opportunities to discuss findings with PRPs and LSPs before issuing Notices of Audit Findings, and for resolving disputes about professional judgement.
- Establishing some automatic triggers for audits (e.g., reclassification from Tier I to Tier II before a Phase II site assessment has been completed).

- Publicizing audit results, identifying both PRPs and LSPs (although some commenters do not support DEP enforcement action directly against LSPs as the result of audits).

There were mixed views on whether the statutory requirement that DEP audit 20% of sites required to pay annual compliance fees is necessary or reasonable. Some commenters believe that DEP should strive to meet this mandate to improve public confidence in the program. Others noted that the 20% requirement is not necessary, and could be reduced.

DEP Response: A well-planned and implemented compliance and enforcement program provides effective deterrence, removes unfair economic gain from non-compliance, and levels the playing field for those who do comply. In a program with a significant privatized component, audits are a cornerstone of compliance and enforcement, as they help to target activities which are key to maintaining program credibility. DEP agrees with commenters who recommend strengthening the audit program as well as followup enforcement.

Since the Draft GEIR was published, DEP has started to develop plans to implement its recommendations in the first phase of program improvements. These include:

- Standardizing the audit program by redefining “audits” so they have clear endpoints and represent “snapshots” of response actions, developing checklists for major audit components so that audits are generally consistent statewide, providing enhanced training for audit staff, and count substantive audit-related reviews toward the 20% mandate.
- Making the audit process more efficient, including administrative completeness reviews and technical screens of submittals, unannounced inspections/audits of operating remedial systems and sites with Activity and Use Limitations, continuing to conduct both targeted and random audits (and improving the process by which sites are selected for each).
- Establishing a credible deterrence to inadequate private sector work, by enhancing databases that track audit results to improve the agency’s ability to identify patterns of problems, starting development of a series of training seminars for LSPs and DEP staff that focus on real cases, and streamlining the agency’s process for referring complaints to the LSP Board.

In the first phase of program improvements, significant changes will be made in the audit program. Additional changes will be discussed during the second phase. These changes will involve both regulation revisions and changes in operational practices. These improvements are described in more detail in Appendix 4 (see Team 4), and will be introduced in the first phase of program improvements.

2. Non-Responder Enforcement.

Commenters agreed with Draft GEIR recommendations that DEP should focus resources on PRPs who are not conducting response actions at sites.

DEP Response: Since the Draft GEIR was published, DEP has initiated a “Standard Penalty Assessment Notice” as a pilot project to test an enforcement strategy that, by assessing penalties for failing to proceed with response actions, will attempt to make non-response more expensive than compliance with MCP deadlines and requirements. This strategy is now being implemented as a pilot. It will be incorporated into the program’s Enforcement Response Guidelines with modifications based on experience gained, as needed. In addition, DEP has also implemented a

standardized process for reviewing and approving PRPs' assertions that they are financially unable to undertake or continue response actions at their site. DEP's increased field presence noted above is expected to further compel parties to start, restart, or accelerate response actions at sites that may have been languishing. Further efforts to clarify MCP deadlines and requirements (to be developed in both phases of the program improvements) are expected to assist these efforts

3. Information Distribution/Compliance Assistance

Some commenters noted that information and suggestions provided by DEP auditors during audits has been an important vehicle for compliance assistance, and should not be lost in the redesign of the audit program. In addition, commenters suggested that DEP should conduct more professional training sessions for LSPs and PRPs (including topics such as the ramifications of non-compliance and public involvement requirements), and publish its short "Q&A" documents more frequently. The need to educate citizens to understand the information that is available about sites in their community and the program was also noted.

DEP Response: DEP is currently inventorying its compliance assistance activities, and will identify ways to provide this essential service effectively and efficiently. Such assistance must not undercut LSPs' exercise of their professional judgement nor can it be allowed to overwhelm DEP's limited resources. The review of compliance assistance efforts will include an evaluation of the "MCP Helpline", "Q&A" documents, and other ways to explain the program and its requirements to PRPs, LSPs and the public. This review will result in recommendations for operational changes during the second phase of program improvements.

C. Permit and Compliance Fees

Commenters expressed support for collecting outstanding compliance fees identified in the Draft GEIR, and asked DEP to consider replacing annual compliance fees with a one-time compliance fee, or a fee-per-submittal approach.

DEP Response: Since the Draft GEIR was published, DEP has sent out invoices for the full backlog of annual compliance fees. The agency is currently discussing the changes in the fee system identified in the Draft GEIR, and will make formal proposals with the second phase of program improvements, in concert with proposed changes in permits and other program components.

D. Homeowner Issues

Commenters expressed support for establishing financial assistance for homeowners who have 21E releases. They also suggested that the program should make accommodations for homeowners on reporting and assessment requirements, and that direct DEP oversight would be beneficial, especially to assess the effectiveness of innovative technologies that could cut response costs.

DEP Response: DEP agrees that homeowner cases need special attention, since homeowners are among the most vulnerable PRPs, and many lack the financial resources to conduct needed response actions. As noted in the Draft GEIR, these cases are frequently some of the most emotionally wrenching for DEP staff. At the same time, the agency needs to ensure that cleanups will protect the most sensitive populations and receptors from contamination risks.

DEP is proceeding to address these problems on two fronts. Both efforts have been given a high priority by DEP, and are expected to be completed in concert with the first phase of program improvements. One on-going effort is directed at program requirements, to see whether regulatory burdens can be eased, particularly for deadlines that may not fit with insurance pay-out schedules, and level of agency oversight. The second on-going effort is focused on identifying possible financial assistance tools and developing legislative proposals. This initiative is being done by a workgroup comprised of residential insurers, residential mortgage holders, LSPs, representatives from the home heating oil industry, local officials, homeowners' attorneys, and state and local officials. For more detail on specific issues to be covered by these efforts, please see Appendix 4, Team 1.

E. Program Resources

Commenters suggested that DEP needs an overall increase in funding for the 21E program, as well as a long-term stable source of funding that will provide continuity. In addition, commenters noted that DEP's cap on bond spending has limited the agency's ability to use public funds at sites where private parties are unable or unwilling to conduct response actions.

DEP Response: Since the program was redesigned in 1992-93, it has enjoyed important support for its budget, and has seen some growth during a period when many state programs were shrinking. The 1998 Brownfields Law was accompanied by a supplemental budget which (among other things) provided \$10 million to DEP over a three-year period to audit sites with Activity and Use Limitations and to oversee private sector response actions. The 1998 Law also requires DEP to report to the Legislature in February 2000 on its financial requirements for continued implementation of these initiatives, and requires the Administration to submit an appropriate budget request for further funding at that time.

DEP has begun to implement these requirements of the 1998 Brownfields Law, and believes that the funds provided will provide sufficient augmentation of resources to meet program mandates. As DEP evaluates future funding needs in preparation for filing the February 2000 report, it will consult with the Waste Site Cleanup Program on funding needs, and encourages anyone interested to take part in these discussions.

Summary of DEP Responses on Section 2 part III :

Commenters suggested a number of issues to consider as improvements proposed in this chapter are developed. DEP's response is presented as either a "phase I" or "phase II" task (see Table 1 in Section 1):

Phase I Changes:

- DEP plans to refine the Numerical Ranking System to better define and reflect the universe of "worst sites". Changes to the NRS scoring will include addressing sites with complex hydrogeology, private well contamination, indoor air and vapor impacts, etc. Criteria for rescoring sites after new information is obtained will also be developed.
- The agency is committed to revising the audit program so that it captures many on-going compliance efforts and provides standardized and statistically significant results to assess the

success of the program. The revised audit program should also be a credible deterrent to inadequate response actions.

- Regulation revisions in the first phase will include proposals for requiring the submittal of a scope of work for a comprehensive evaluation of contamination and the risks it poses with a site's Tier Classification, streamlined provisions for adding PRPs to existing permits, and allowing reclassification of sites after completion of Phase III.
- DEP is conducting an inventory and evaluation of all compliance assistance activities and remains committed to providing this essential service effectively and efficiently.
- DEP is increasing direct enforcement against parties who are not performing response actions, and is committed to strengthening this aspect of its enforcement program. DEP is developing proposals for financial assistance tools and program adjustments that will address homeowner cleanup issues.
- DEP has implemented a process to assess and collect outstanding annual compliance fees.

Phase II Changes:

- DEP is extending its program evaluation to a more detailed review of how the agency oversees "worst" cases. This review is expected to result in recommendations for better management approaches and efficiencies.
- DEP plans to review the value and timing of the different types of permits.
- DEP will continue to evaluate the current permit and annual compliance fee approach. Options include retaining the current approach for assessing annual compliance fees or moving towards a submittal-based fee approach. DEP is also considering developing a flat annual compliance fee for Tier 1A sites, as opposed to site-specific DEP oversight charges.
- DEP will revisit the current statewide site discovery program and develop recommendations.

More details on DEP's plans for addressing these issues are reflected in Appendix 4, Teams 1 (Homeowners), Team 2 (Fee Issues), Team 4 (Compliance and Enforcement), and Team 5 (Tier Classification, permitting, site discovery and other site management issues).

IV. Are the standards set appropriately?

A. Risk Assessment

Commenters indicated that the establishment of cleanup standards that are generally based on risk and are believed to be cost-effective has been a major factor in the success of the redesigned 21E program, and have increased property owners' willingness to clean up and reuse their contaminated sites. The MCP's three methods for analyzing the impact of 21E sites on health and the environment were generally seen to be reasonable (although some commenters thought that Method 3 may provide too many opportunities to "risk away" problems and avoid needed cleanups). They help provide needed certainty. Also, the development of specific standards and methods for analyzing volatile and extractable petroleum hydrocarbons was thought to have been similarly helpful.

Several suggestions for improvements were made:

- DEP needs to help assure that laboratory analyses of environmental samples are properly collected and documented. Some commenters supported a suggestion that DEP certify laboratories for 21E-related soil, groundwater, and other environmental sampling, while others suggested that training in the evaluation of laboratory analyses would be more cost-effective.
- Requirements to sample TPH and PAHs to determine their extent on adjacent properties should be reviewed, particularly where they are found in filled material. Consideration should be given to applying the concept of “local conditions” (used to assess ecological risks in aquatic environments) to soil assessments for human health.
- There should be a more specific definition of “substantial hazards”.

Commenters generally supported the existing standards for cleaning up contaminated soil, but were divided on whether a more specific definition of “hot spots” should be created. Some asked that they be defined by concentration and volume, while others asked for continued reliance on LSPs’ professional judgement. Commenters also requested that DEP continue to allow capping contamination in place as a permanent remedy.

Commenters disagreed on the issue of whether GW-2 standards should apply in situations where there is currently no building close to the plume of contamination. Some suggested that, where buildings have not been built, Activity and Use Limitations should be required to alert future property owners of potential problems. Others indicated that the current requirement is sufficient, noting that many developers consult DEP’s files to identify potential environmental problems before acquiring property. As to the application of groundwater standards, one commenter suggested that DEP waive the requirement to meet GW-1 standards in circumstances where public wells have been closed and will never reopen, and conformance of buffer zones around public surface water supplies to recently enacted standards in the Water Supply Regulations.

Other suggestions were

- the MCP should require evaluation of impacts on sewer systems from contaminated surface runoff discharges (e.g., low levels of PCBs and mercury from construction and stormwater runoff).
- if “public welfare” is more specifically defined in the MCP, that it be clear that it is a collective rather than an individual concept, and focus on “big picture” issues.
- that “background” should be defined so that it addresses the absence of the site of concern, rather than any human intervention in the environment around a site as currently required (DEP was asked to complete the guidance for evaluating the feasibility of cleaning up to background that has been in preparation for several years), and should recognize the difficulties inherent in measuring the achievement of “background” during excavation.

DEP Response: DEP agrees with the commenters who expressed support for risk-based decision-making. The agency also remains committed to an approach that recognizes risks that can be characterized quantitatively (e.g., through the use of MCP Methods 1, 2, and 3) as well as risks that cannot be reliably quantified. For the latter types of risks, DEP believes that the existing limits on

risk-based decisions that were incorporated into the MCP (e.g., Upper Concentration Limits) and the statutory requirement to clean up to background conditions if feasible (see below) are important because they provide some assurance that “unquantifiable” risks will be reduced where needed by response actions.

Since the Draft GEIR was published, DEP has been developing improvements for the MCP’s requirements for risk characterization. These changes will be implemented as part of the first phase of program improvements:

- Developing recommendations for updating and clarifying several aspects of the Method 1 standards, including soil leaching modeling used to develop the standards, the use of fate and transport models in assessing potential GW-2 impacts, consideration of human exposures in the application of GW-3 standards, incorporating new toxicity information, and possibly developing standards for additional chemicals.
- Clarifying issues found in the application of Method 2, in terms of considering migration of contamination from soil to air, further defining the accessibility of contaminated soil, and possibly establishing some criteria designed to keep this Method from being used inappropriately.
- Redefining and clarifying “Imminent Hazards” (and possibly renaming to reflect the term’s actual use in the program), and defining “substantial hazard”.
- Considering criteria for evaluating risks to public welfare.
- Refining further requirements to identify exposure points and to calculate exposure point concentrations.
- Refining regulatory requirements for characterizing ecological risks, including possibly narrowing the scope of these assessments and describing the relative value of ecological resources (supporting guidance is expected to be developed during the second phase of program improvements).

DEP has also started to investigate ways to improve the quality of data about conditions at 21E sites. These may include training to enable LSPs to become better “consumers” of data, and working with on-going public and private efforts to certify laboratories for performing analyses that are not currently regulated (e.g., soil analyses). In all of these efforts, the comments described above (and others received more recently) will be considered.

B. Activity and Use Limitations (AULs) and Response Action Outcomes

Many commenters noted that AULs are key to the successful implementation of risk-based decisions about “how clean is clean enough”, and that AULs have been increasingly accepted by the real estate and lending communities over the last five years. There was little support for establishing new limits on their use, but several commenters had suggestions for improvements in the current requirements:

- AULs should not be mandatory for sites with Class C RAOs.
- DEP should identify those sections of AULs that should be completed by an attorney.

- AULs should not generally be required for any future construction (commenters disagreed about whether AULs should be required in GW-2 areas where there are currently no buildings close to the plume of contamination).
- DEP's guidance on the use and implementation of AULs should be issued as soon as possible.

In addition, commenters were divided on whether there should be additional notice requirements (beyond what is currently in the regulations) for easement holders, abutters, downgradient property owners, etc. Some commenters thought that these notices would provide valuable information to these parties, while others thought that the extra notices would not be beneficial.

DEP Response: AULs are flags that indicate a “conditionally permanent” cleanup (unless an AUL is used with a temporary solution or Class C RAO, or voluntary filings). They are important reminders that contamination remains at the site at levels that are safe as long as certain conditions are maintained. DEP agrees that they are an important component of risk-based decisions about how much cleanup is needed at an individual site. But, the agency also believes that, because they are used in situations where cleanup is by definition less than complete, they need special attention to ensure that the required conditions at the site are maintained over time (for as long as needed). The 1998 Brownfields Law responded to the Draft GEIR's assessment that many early AULs were improperly developed with a requirement that DEP conduct targeted audits of all sites with AULs, and that the program's requirements be reviewed to ensure that they comport with current real estate conveyancing practices.

DEP is proceeding to implement the requirements of the 1998 Brownfields Law, and will conduct targeted audits of sites with AULs filed after that law was passed as well as sites with AULs filed between 1993-98. These audits will ensure that “conditionally permanent” response actions are adequate to protect public health and the environment, and will also provide an opportunity to pilot test some of the changes in the audit program described above. To assist DEP auditors and private parties who are implementing AULs, DEP will issue guidance in February 1998.

In addition, DEP is reviewing the AUL regulations to ensure that they comport with current real estate conveyancing practices, and to clarify points that have arisen since the regulations were promulgated. These changes will be made as part of the first phase of program improvements.

DEP is also taking this opportunity to review requirements for Response Action Outcomes, and expects to make changes in several areas with the first phase of program improvements:

- Clarifying rules for post-RAO construction activities in contaminated areas (including clarifying the current rules for deciding whether new response actions are needed in an area subject to an AUL)
- Formally establishing criteria for RAOs that apply only to the portion of a site owned by someone who is eligible for a liability endpoint under the 1998 Brownfields Law (owners and operators of soil contamination only need to clean up problems on their property if they are otherwise eligible).

Summary of DEP Responses in Section 2 Part IV:

DEP's commitment to quantitative risk-based decision-making about site reporting and cleanup is tempered by the bottom-line tenets of the MCP (e.g., Upper Concentration Limits, use of

Activity and Use Limitations, time sensitive reporting and accelerated responses associated with “time-critical” conditions such as Substantial Release Migration or Imminent Hazards). DEP is also committed to updating all standards to incorporate new scientific knowledge. The comments raise a number of issues that will be discussed by workgroups, which will help DEP to develop recommendations for refining the standards. DEP’s plans to address these issues are described below:

Phase I Changes:

- DEP will complete its reassessment of the protectiveness of the Method I standards and present recommendations incorporating new scientific data.
- DEP will clarify the process for identifying and evaluating Imminent Hazards, defining “substantial hazard” for human health, and defining “public welfare”.
- DEP will publish final guidance for implementing AULs at disposal sites. DEP will also revise the MCP where needed to implement the 1998 Brownfields Law, and will look for opportunities to streamline the AUL and RAO regulations.

Phase II Changes:

- DEP plans to complete a guidance document that will clarify the Department’s expectations to meet the statutory requirement to “approach or achieve” background at a disposal site

More detail on DEP’s plans to address these specific issues is contained in Appendix 4, Team 3.

V. Does the public have adequate public involvement opportunities?

Commenters expressed a variety of opinions about measures proposed in the Draft GEIR to improve public involvement opportunities:

- There was no support expressed for maintaining requirements for publishing notices of certain site milestones at Tier IA and IB sites in the Environmental Monitor to comply with MEPA. Commenters did not see any value provided by these notices.
- DEP should better publicize the opportunities for public involvement in front end (preliminary response) actions.
- Public concerns need to be accommodated during the remediation process as well as during assessments.
- All submittals to DEP should be copied to the appropriate Board of Health.
- Press releases need not be required at key response action milestones, since newspapers can now follow up a legal notice with a story if they choose.
- Notices of key response action milestones should be posted in municipal offices.
- Individual notices to site abutters about response action milestones would be burdensome. Commenters disagreed about whether these notices would provide benefits.

- PRPs should be allowed to reduce Public Involvement Plan activities to address only 21E-related concerns, and to end PIP activities when the public no longer demonstrates interest.
- Technical Assistance Grants should be made more widely available, and public education activities should be expressly eligible for Grants.

DEP Response: A key underpinning of the program's redesign was that DEP would continue to be a repository for information about 21E sites and their impacts. The agency is now exploring a variety of ways to make this information more accessible to people who want to use it for community planning, natural resource protection, brownfields redevelopment and many other purposes (these will include improving the accessibility to the databases of reported releases and site status that are currently available through the agency's World Wide Web page). In addition, DEP is committed to providing substantial opportunities for the public to be involved in response actions, throughout the process. At the same time, the agency recognizes that there are some opportunities for streamlining to make providing these opportunities more efficient. DEP is currently reviewing the proposals in the Draft GEIR, and will make recommendations for streamlining public involvement requirements and the Technical Assistance Grant Program in the second phase of the program improvements.

More detail on DEP's plans to address these issues is contained in Appendix 4, Team 5.

VI. Is the program cost effective?

Comments in this area did not indicate a consensus, and may reflect a lack of comprehensive data. Some commenters focused on how to allow LSPs to document that additional remediation that does not contribute specifically to risk reduction should not be necessary. Others focused on the requirement that Tier IA sites be managed by an LSP but also directly overseen by DEP staff.

DEP Response: DEP agrees with commenters who suggested that there is not enough hard data to answer this question. DEP will continue to consider it, and may identify additional data to collect (and may need to work with stakeholder groups to collect it, since many stakeholders do not want to report more information to the agency than is needed by DEP to operate the program.). This issue will be dealt with over the long term, and is not currently on the schedule for either the first or second phase of program improvements. However, DEP will consider any information in this area that anyone wants to provide.

VII. How should the success of the program be measured?

A significant majority of commenters objected to the types of information presented in the Draft GEIR, and argued that the Draft GEIR was biased against the privatized component of the redesigned program. Additional analysis of "problem" RAOs was requested to identify classes of sites, PRPs, LSPs, and types of contamination that present consistent and recurring problems. Some commenters noted that this information is critical for a full evaluation, and should be used to focus DEP resources on education and enforcement. Also, commenters suggested that DEP should ask PRPs to provide information about their response action costs so that the cost-effectiveness of the new program could be analyzed.

DEP Response: Using any yardstick, the redesigned MCP is a success. Literally thousands more sites are receiving more attention under the new program than were addressed under the

original 1988 program. Nevertheless, in conducting the evaluation of the redesigned 21E program (described in the Draft GEIR) and in reviewing the comments submitted, DEP has been struck by the divergent views about the program's success. This disparity can likely be attributed to the program's complexity and the fact that stakeholders are most likely to see only a small component of the overall program.

DEP believes that many of the program improvements now under consideration will, when implemented, reinforce agency and public confidence in private sector response actions. DEP is firmly committed to working with all stakeholders as these improvements are developed and implemented. These improvements should provide a substantially improved information base for future evaluations. DEP also wants to work with stakeholders (through the Waste Site Cleanup Program Advisory Committee) to develop consensus-based measures by which the success of this program can be better measured.

DEP will continue discussions about how to measure the success of the MCP in every internal and external program improvements workgroup, and with the Waste Site Cleanup Program Advisory Committee. This task will continue throughout implementation of both phases of the program improvements. DEP will present recommendations on additional data to be collected and analyzed as part of each issue discussed with the Waste Site Cleanup Program Advisory Committee throughout the program improvement process.

VIII. How can the MCP be streamlined?

Commenters noted that many of the streamlining suggestions in the Draft GEIR would reduce costs associated with MCP compliance, but warned against making changes that would add requirements, procedures, and therefore costs and time to response actions. Specific suggestions to consider were:

- Delete approval requirements for IRAs and RAMs, or allow oral approval of RAM Plans.
- Do not require an LSP for an LRA.
- Develop a streamlined process for URAM submittals.
- Raise the RQ for non-PCB mineral oil dielectric fluid from 10 to 25 gallons.
- Allow more than 60 days to complete an IRA.
- Do not require resubmittal of previously submitted reports/data with an RAO Statement.
- Do not add requirements to tighten the cost-benefit portion of the Subpart H feasibility analysis.

DEP Response: DEP will constantly review the MCP to find streamlining opportunities. Specific comments on how to streamline the MCP will be considered as proposals are developed under each phase (see Table 1). More detail on DEP's plans to further streamline the MCP are contained in Appendix 4, Teams 1-5. Several topics for streamlining are presented in the Team matrices.

IX. LSP Board Evaluation

Summary of Comments and LSP Board's Response:

In Chapter 9 of the Draft GEIR, the LSP Board asked and presented preliminary answers to the three questions noted below. Eight individuals commented on the LSP Board's section of the draft GEIR. The views expressed varied significantly. The comments received are summarized below.

Question #1: Is the Board licensing only those who are competent to practice as LSPs?

Only one commenter (who is both an LSP and a PE) stated that the LSP licensing program lacks credibility. This commenter's chief concerns were that the Board requires applicants to have only five years of what the Board defines as "relevant experience" and requires no engineering training. As a result, this commenter found LSPs to be less than competent, particularly with respect to remediation work. This commenter recommended that all remediation work be prepared and signed by a licensed professional engineer to ensure that it is performed with a minimum level of competence.

A citizens study committee recommended that the Board use its disciplinary process to weed out LSPs who are not competent to practice.

The other six commenters either did not comment on this question or expressed the view that the LSP program has produced a knowledgeable and generally competent cadre of environmental consultants.

One commenter (an LSP) specifically opposed the concept, mentioned in the Draft GEIR, of setting up a specialty licensing program that awarded separate licenses for specialties such as risk assessment.

Question #2: Has the Board (in conjunction with DEP) taken adequate steps to ensure that LSPs are practicing in a satisfactory manner?

Two commenters (an out-of-state LSP and a citizens group) expressed the view that the Board and DEP had not taken adequate steps to ensure that LSPs practiced in a satisfactory manner. Concerned that LSPs were conducting sloppy and inadequate work, or were cutting corners in response to market pressures, these commenters recommended increased vigilance by the LSP Board in assessing LSP performance and imposing disciplinary action when necessary. They also recommended adding new rules of professional conduct to regulate certain business practices and to require professional integrity by LSPs when dealing with PRPs. The citizens group also recommended that the Board move quickly to fill the vacant environmental slot on the Board and to replace the environmental representative whose term has expired. Both these commenters also recommended that DEP and the Board do more to make public their findings of inadequate LSP work.

Two other commenters (a bar association workgroup and a private attorney who works with LSPs) supported the view that LSPs are generally competent, conscientious, and do adequate work. They advised DEP to be cautious about moving towards greater DEP enforcement against LSPs, except in egregious cases, because they believe this would create marketplace disincentives and additional legal exposure that complicates LSP-client arrangements. They recommend that, rather than prohibiting LSPs from "acting outside their own areas of expertise without relying on the expertise of others," the Board should adopt a more modest requirement: "that an LSP must rely in part upon

the advice of one or more professionals whom the LSP determines are qualified by education, training and experience, when the LSP determines that circumstances so require.”

An LSP commented that enforcement actions against LSPs should only be brought by the Board and that DEP should not also seek to do so. This LSP contended that if an infraction by an LSP does not merit the effort to seek disciplinary action by the Board, the PRP should be cited. The PRP and the LSP will then resolve the issue.

An association of LSPs commented that the Board goes beyond what other professional boards do by affirmatively seeking disciplinary complaints. It recommended that the Board explicitly define the criteria or “triggers” that determine when a transgression by an LSP rises to the level of matter that the Board should take under its purview. It also recommended that there be an agreement between DEP and the LSP Board setting forth standards, guidelines, criteria, and procedures for deciding whether and how to refer a complaint to the LSP Board for enforcement. Such an agreement would screen out frivolous complaints to the Board such as fee disputes. The association agrees that the Board should not be involved in fee disputes.

Question #3: Is the Board adequately funded and staffed, and does it use its resources effectively and efficiently to accomplish its responsibilities?

The Board received no comments on this question.

LSP Board’s Response: The Board has concluded that its licensing standards and procedures are generally effective and are producing a pool of LSPs who are generally competent. Therefore, the Board does not plan to make any significant changes to its licensing or examination requirements. The Board believes that LSPs as a whole are practicing at a level that is about what would be expected at this juncture, five years into the redesigned 21E program. At the same time, the Board believes that there may be some LSPs who practice to some degree in a manner that is not satisfactory. The Board is prepared to take the following steps to improve the level of practice of these LSPs:

- The Board will take the steps outlined in the draft GEIR to educate LSPs and PRPs about the Board’s Rules of Professional Conduct, facilitate the referral of complaints against LSPs to the Board when those Rules are violated, increase the pace and thoroughness of the investigation of these complaints, and make the results of the Board’s disciplinary actions more publicly visible.
- The Board is considering the appropriate language to use in revising Section 4.02(3) of its Rules of Professional Conduct to clarify that LSPs should not provide professional services outside of their own area(s) of professional competency, but they may rely in part on the advice of others who have professional competency in these areas.
- The Board is considering adding new rules of professional conduct which regulate certain business practices and require professional integrity by LSPs when they deal with clients and prospective clients. The Board does not intend, however, to become involved in disputes about fees.

The Board’s Regulations Committee will proceed to draft proposed regulation changes over the next few months. The proposed regulations will be published for public comment in April 1999, and public hearings will be held in May. The Board anticipates that final regulation changes will be promulgated in August 1999.

SECTION 3: APPENDICES

- APPENDIX 1: Comments Submitted on the Draft GEIR**
- APPENDIX 2: MEPA Certificate for Draft GEIR**
- APPENDIX 3: List of Topics for External Workgroups**
- APPENDIX 4: Matrices of DEP Teams & Projected Tasks**

APPENDIX 1: COMMENTS SUBMITTED ON THE DRAFT GEIR

List of Commenters

| | |
|---------|---|
| 7/23/98 | Buchanan & Associates (Amy Black - commenter requested copy of MEPA Certificate only) |
| 8/3/98 | Norfolk Environmental |
| 8/4/98 | Hale and Dorr LLP |
| 8/7/98 | New Mexico Environment Department (Stacy Sabol) |
| 8/12/98 | Foley, Hoag & Eliot LLP |
| 9/9/98 | Massachusetts LSP Association (Steinberg and Furst) |
| 9/9/98 | Massachusetts LSP Association (Furst) |
| 9/9/98 | Boston Bar Association |
| 9/9/98 | Goodwin, Proctor & Hoar LLP |
| 9/9/98 | Massachusetts Electric |
| 9/9/98 | William Baird |
| 9/9/98 | 21E Citizens Study Committee |
| 9/9/98 | Associated Industries of Massachusetts/National Association of Industrial and Office Properties |
| 9/10/98 | Massachusetts Water Resources Authority |
| 9/10/98 | Dr. George Furst |
| 9/10/98 | Haley & Aldrich |

APPENDIX 2: MEPA Certificate for Draft GEIR

APPENDIX 3: List of Topics for External Workgroups

HELP DEP IMPROVE THE 21E PROGRAM

DEP is inviting LSPs and others to participate in several workgroups that will help develop many aspects of the program improvements proposed in its June 1998 Program Evaluation (Generic Environmental Impact Report). These workgroups will each focus on a few specific issues, and will advise the Waste Site Cleanup Program Advisory Committee and the Department as draft regulations and operational changes are developed. Below is a list of specific issues that would be considered. Topics that are slated to be developed in the first phase of program improvements are noted with an asterisk. DEP plans to issue final rules for these by early August 1999. Other topics will be developed in the second phase, with completion planned for Spring 2000. If you want to participate in the discussions, please fill out the form below or sign up online at <http://www.state.ma.us/dep/bwsc/files/helpbwsc.htm>.

Your Name:

Your Affiliation/Company:

Street Address:

City/Town:

State:

Zip:

Telephone:

email address:

Fax:

The topics are:

- | | |
|---|--|
| <input type="checkbox"/> Audit Program | <input type="checkbox"/> Compliance Assistance* |
| <input type="checkbox"/> Substantial Release Migration* | <input type="checkbox"/> Downgradient Property Status* |
| <input type="checkbox"/> AULs* | <input type="checkbox"/> Future Use Considerations in GW-2 Areas* |
| <input type="checkbox"/> RAOs/post-RAO construction* | <input type="checkbox"/> Conceptual Site Model |
| <input type="checkbox"/> Risk Characterization/Subpart I* | <input type="checkbox"/> Remediation Waste Management |
| <input type="checkbox"/> Numerical Ranking System* | <input type="checkbox"/> Front End Response Actions (LRAs, RAMs, IRAs) |
| <input type="checkbox"/> Homeowners/Cleanup Process* | <input type="checkbox"/> Homeowners/Financing Cleanups* |
| <input type="checkbox"/> Public Involvement Requirements | <input type="checkbox"/> Technical Assistance Grants |
| <input type="checkbox"/> Fees | |

Please return to:

Paul Bakely

Bureau of Waste Site Cleanup

One Winter Street

Boston, MA 02108

APPENDIX 4:

Matrices Describing DEP's Approach to Implement Program Improvements

TEAM 1

Front End/Risk Reduction

- DRAFT FOR PUBLIC COMMENT-

| GEIR Recommendation | Changes/Resources Needed | | | | | Planning & Measures of Success | Brownfields Issue |
|---|--------------------------|-------------|----------|----------|--------------------|--------------------------------|---|
| | Regulatory Issue | Operational | Policy | Training | External Workgroup | | |
| 1. Clarify when Substantial Release Migration exists | Yes | Yes | Possibly | Yes | Yes | Yes | Yes, legislative mandate to complete by 8/99. |
| 2. Downgradient Property Status - Source Known or Unknown | Yes | Yes | Possibly | Yes | Yes | Yes | Yes, Legislative mandate to complete by 8/99. |
| 3. Homeowner Issues - Prevention (Feedline Replacement Project) - Financial (Lender, Insurance and Oil interests) - Minimum DEP Involvement (DEP Regional SOP) - Outreach and Guidance - Regulatory relief (fees, Tier class., & deadlines) | Yes | Yes | Yes | Yes | Yes. | Yes | |
| 4. Notification Issues - Should surface water contamination above acute AWQ criteria trigger a 2 or 72 hr notification threshold? - Should SRM be 72 hr notification requirement under 40.0300? | Yes | Yes | | Yes | | Yes | |
| 5. LRA's - Review Timelines and soil volume limits | Yes | Yes | | Yes | | Yes | |
| 6. Clarify Remediation Waste provisions | Yes | Yes | Yes | Yes | Yes | Yes | |
| 7. IRA's/RAM's - Clarify Imminent Hazard notification/identification process. - Consider oral approvals for RAMs - Expand applicability of URAMs to general construction activities - Review number of and timing of front end/risk reduction submittals - Forms | Yes | Yes | | | | Yes | |

TEAM 2: FEES**- DRAFT FOR PUBLIC COMMENT-**

| GEIR Recommendation | Changes/Resources Needed | | | | | Planning & Measures of Success | Brownfields Issue |
|--|--------------------------|-------------|--------|----------|--------------------|--------------------------------|-------------------|
| | Regulatory Issue | Operational | Policy | Training | External Workgroup | | |
| 1. Potential Fee System Modifications - Submittal based approach v.s. Annual fee - Consider Flat fee for T1A sites - Consider alternative or no fees for “vulnerable” PRPs (homeowners, municipalities, small businesses) | Yes | Yes | No | Yes | | Yes | Yes |
| 2. Use of fees as incentives | Yes | Yes | | Yes | | Yes | |
| 3. Review of fee amounts for permits, RAMs and RAOs | Yes | Yes | | Yes | | | |
| 4. Enhance Collection of fees owed DEP | | Yes | | | | Yes | |

TEAM 3

RISK CHARACTERIZATION/RAO/AULS - DRAFT FOR PUBLIC COMMENT-

| GEIR Recommendation | Changes/Resources Needed | | | | | Program Planning | Brownfields Issue |
|--|---|---|---|--|----------------------------------|--|--|
| | Regulatory | Operational | Policy | Training | Contractor Assist. | | |
| 1. Method 1 Standards Reassessment <ul style="list-style-type: none"> GW-2 Model GW-3 Human Exposures Soil Leaching Model Toxicity Updates Additional Chemicals | Changes to Method 1 standards | | | Publish documentation, possible training in models, etc. | None - Modeling done in-house | | Will affect cleanup goals for brownfield Sites |
| 2. Redefine Imminent Hazards and Define Substantial Hazards for human health & environment | Changes to 40.0950, coordinated with Subparts C and J. | | Guidance on identification of IH & SH. | Yes, must provide training to DEP staff & LSPs | | | Substantial Hazards tied to Class C RAOs |
| 3. Define Risk to Public Welfare | Changes to 40.0994 | When, if ever, will program take action due to PW risk? | Elaborate on regulatory definition, if needed. | Yes, for LSPs and DEP staff | | | May be the only risk-driver at some brownfield sites |
| 4. Ecological Risk Characterization <ul style="list-style-type: none"> Narrow scope of assessment Describe relative value of resources | Specify assessment endpoints of interest, typical evaluations for specific habitats | | Elaborate on regulatory criteria, if needed (likely). Update existing guidance. | Yes, for DEP staff and LSPs | Yes, request has been submitted. | Coordinate with Basin Teams, Fish & Wildlife, Wetlands, etc. | |
| 5. Clarification of Method 1 Issues <ul style="list-style-type: none"> Soil to air pathway Soil accessibility Inappropriate use of Method | Possible Changes | | Guidance, Q&As to clarify issues | Continued basic training on Methods | | | Method 1 will likely be used at majority of Bfield sites |
| 6. Exposure Point Concentrations <ul style="list-style-type: none"> Identification of Exposure Points Calculation of values for all methods | Possible Changes | | Sampling strategies, linked with site investigation guidance | Yes - DEP and LSPs | | | |

TEAM 3:

RISK CHARACTERIZATION/RAO/AUL (CONT.) - DRAFT FOR PUBLIC COMMENT-

| Team # 3 | Regulation Changes | Operational Changes | Future Policy Needs | Training | Programmatic Planning Issues | Contractor Assistance | Brownfields Issues |
|-------------------------------|--|---|--|--|--|-----------------------|---|
| Implement GEIR Recommendation | <p>AULs (see attached for detailed list):</p> <ul style="list-style-type: none"> general use issues procedures for development and implementation AUL form revisions as needed <p>RAOs (see attached for detailed list):</p> <ul style="list-style-type: none"> post-RAO construction in contaminated media “Brownfields RAOs for soil contamination other “RAO-P(artial) clarifications | <p>AULs:</p> <ul style="list-style-type: none"> audit development (see Team 4) publish guidance (11/98) <p>RAOs:</p> <ul style="list-style-type: none"> revise forms as needed data systems revised as needed | <p>AULs:</p> <p>revise guidance as needed</p> <p>RAOs:</p> <ul style="list-style-type: none"> Approaching and Achieving Background Technical Considerations of Permanent Solutions (e.g., natural attenuation) | <p>AULs</p> <p>RAOs</p> <p>Adequately Regulated Sites</p> | <p>AULs and RAOs:</p> <ul style="list-style-type: none"> measures of success | <p>none</p> | <p>dealt with via regulation, policy, operational changes</p> |
| Perform E.O. 384 Review | <p>AULs and RAOs:</p> <p>will look for streamlining opportunities as regulation revisions are developed</p> | | | | | | |
| Prepare Final GEIR Report | <p>AULs:</p> <p>FGEIR will outline general directions and identify open questions</p> <p>RAOs:</p> <p>FGEIR will outline general directions on major issues</p> | | | | | | |

TEAM 4: Compliance and Enforcement - Draft for Public Comment -

| GEIR Recommendation | Regulation Changes | Operational Changes | Future Policy Needs | Training Needs | Contractor Assistance | Brownfields Issues |
|--|--|--|--|--|--|---------------------------------------|
| Compliance & Enforcement Strategies 1. Enforcement Response Guidance (ERG) <ul style="list-style-type: none"> Amending the ERG Updating Penalty Buckets Brownfields Issues 2. Non-Responders (& default Tier IB Sites) <ul style="list-style-type: none"> SPAN Default Tier IB Billing Issues Tier Classified Sites | Penalty Issues Brownfields | Revise NORs Revise ERG including penalty buckets | | Training for DEP Audit Staff and LSPs on all Compliance & Enforcement Issues | none | |
| Audit Program Revisions 1. Program Standardization <ul style="list-style-type: none"> Audit Definition, Goals, and Scope Organizational Effectiveness 2. Process Efficiency <ul style="list-style-type: none"> Administrative Completeness Review Technical Screen Audits Unannounced Inspections/Audits Target Comprehensive Audits Random Comprehensive Audits Dispute Resolution 3. Credible Deterrence <ul style="list-style-type: none"> Complaints to LSP Board LSP Training 4. Brownfields Issues <ul style="list-style-type: none"> AUL Audit Project | Changes to 40.1100, coordinated with Subparts A & B Changes to 40.1100 for unannounced inspections/Audits, comprehensive audits, and dispute resolution. Minor changes for technical screens none Changes to 40.1000 (AULs) and 40.1100 (Audits), access issues | Create internal documents to monitor program effectiveness Create SOPs for new audit tools, create tools such as checklists, update audit correspondence including NOAs, NOAFs, RFIs. SOP for dispute process SOPs for referrals Create NOAs, NOAFs and checklists specific to AUL project | Update <i>Audit Implementation Plan</i> Fact Sheet, Q/A Dispute Policy Development Policy development Add to AUL guidance, Fact Sheet, Q/A | Training for DEP Audit Staff and LSPs on all Audit Program Revisions | MIS consultant to track audit results Management consultant to help design new audit program Technical/paralegal consultants to screen AUL audit backlog | Coordinate with Team 3 on AUL mandate |

TEAM 5**SITE MANAGEMENT****- DRAFT FOR PUBLIC COMMENT-**

| GEIR Recommendation | Changes/Resources Needed | | | | | Planning & Measures of Success | Brownfields Issue |
|---|--------------------------|--------------|--------|----------|--------------------|--------------------------------|-------------------|
| | Regulatory Issue | Operational | Policy | Training | External Workgroup | | |
| 1. NRS - Private Wells - Complex Geology - Rescoring - Homeowner NRS shortform | Yes | | Yes | Yes | Yes | Yes | No |
| 2. Permits/Tier Classification - Timing of Tier Classification - T1A upgrades - P2 scope of Work at Tier Classification - Combine T1B and C permit categories - Streamline “new PRP” permit modification process | Yes | Regional SOP | | Yes | Yes | Yes | |
| 3. Public Involvement & TAGs | Yes | Yes | Yes | Yes | Yes. | Yes | |
| 4. Site Discovery/Basin Team Coordination - Focus on Public Water Supply protection - Revisit Statewide Plan - Compliance Opportunities and DPS - Private well impacts | Yes | Yes | | Yes | | Yes | |
| 5. T1A Sites Evaluation - Controversial Sites - Publicly Funded Sites - time tracking needs/staff caseload/efficiency | Yes | Yes | | Yes | | Yes | |
| 6. Conceptual Site Model | Yes | Yes | Yes | Yes | Yes | Yes | |